GOVERNMENT OF INDIA
NEW AND RENEWABLE ENERGY
LOK SABHA

UNSTARRED QUESTION NO:4136
ANSWERED ON:10.08.2017
Renewable Energy Projects under JNNSM
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Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether any renewable energy projects were completed and have started energy generation so far under phase-II of the Jawaharlal Nehru National Solar Mission (JNNSM) and if so, the details in this regard, State-wise;
(b) whether there is a steep fall in solar tariffs during the last two years in the country and if so, the details thereof;
(c) whether the Government has written to all the State Governments to ensure that the solar developers do not get "undue benefits" from the development by insisting that solar projects meet the deadlines initially set for them without any extensions and if so, the details thereof along with the response of the State Governments thereto;
(d) whether none of the solar power plants operating in the country have storage capacity but they transfer all the power they produce immediately to the grid and if so, the details thereof along with the reasons for the same;
(e) whether without storage capacity of solar power plants they are able to supply power for a maximum of only around 12 hours a day and when the power storage capacity increased, the plant becomes unviable and if so, the details thereof and the reaction of the Government thereto;
(f) whether the Government proposes to conduct any study to find out the means by which storage capacity of solar plants will be increased without affecting their viability and if so, the details thereof; and
(g) the steps taken/being taken by the Government for steady, uninterrupted solar power supply of solar power round the clock?

Answer

THE MINISTER OF STATE FOR POWER, COAL, NEW & RENEWABLE ENERGY AND MINES (INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

(a): Solar energy projects of capacity of 10,604 MW were installed in the country under the Phase-II of National Solar Mission (NSM) from April, 2013 to March, 2017. State wise details of grid connected solar capacity installed during Phase-II of NSM are given at Annexure-I.
(b): Yes, Madam. Solar tariffs have come down to the lowest level of Rs. 2.44/ kWh in May, 2017 for Bhadla Solar project in Rajasthan. The details of solar power tariffs in Rs./kWh during the last two years in the country are given at Annexure-II.
(c): Ministry had issued a letter on 03.07.2017 to all states regarding solar power projects implementation schedule. Further, Ministry had issued a clarification on 28.07.2017 stating that if there are delays of any kind on the part of State Government Authorities/ Public Sector Undertakings on issues like land allotment, transmission/evacuation facilities, connectivity permission or force majeure, the Competent Authority may consider providing extension of the time duration as per the Contractual Agreement.
(d): As the cost of the storage systems are very high at present, all the grid connected solar power projects supply directly to the grid.
(e): Solar power projects usually operate for six to eight hours a day depending upon sun-shine hours. Generation of electricity depends upon the intensity of solar radiation falling on the solar photovoltaic panels. Incorporation of energy storage system with the power plant is an add on capital expenditure on the solar power plant, which affects the cost of generation, depending upon the capacity of the storage system incorporated.
(f) & (g): At present cost of storage is high. Therefore, depending upon ratio of storage capacity and solar project capacity, the viability is affected. The viability of storage system also depends upon its application. For applications, such as frequency regulation, ramping up and down of power production etc., wherein the storage capacity is significantly less than the solar power capacity, storage is more viable because it has relatively significant impact in grid management. Storage for load shifting or to store the excess generated power for use at later stage may not remain financially viable, though it may have social impact.

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